Volume 141, Page 1 March 1998

ITEMS TO REMEMBER

MARCH

- March 1: Prove the Fund Ledger and Ledger of Receipts for the month of February to the control of all funds and reconcile with the depository statements. Prove all receipt accounts for each fund to total receipts for that fund. Prove the Ledger of Appropriations, Allotments, Encumbrances, Disbursements, and Balances to the total disbursements of the control account of the Fund Ledger. Prove all expenditure accounts within each program to the total disbursements of that program.
- March 20: Last day to report and make payment of state and county income tax withheld during February to the Department of State Revenue, Indiana Government Center North, Indianapolis. (Please review Volume 140, December 1997 "The School Administrator and Uniform Compliance Guidelines".)

APRIL

- April 1: Prove all ledgers for the month ending March 31 as outlined for the month of February.
- April 10: Good Friday Legal Holiday (IC 1-1-9-1)
- April 15: On or before this date the board of school trustees of the school corporation located wholly or partially within the county, which has the greatest taxable valuation of any school corporation in the county shall appoint a member of the governing body to serve as a member of the county board of tax adjustment (IC 6-1.1-29-1). IC 6-1.1-29-9 provides that the county council may adopt an ordinance to abolish the county board of tax adjustment. The ordinance must be adopted by July 1 and may not be rescinded in the year it is adopted.
- April 20: Last day to report and make payment of state and county income tax withheld during March to Department of State Revenue, Indiana Government Center North, Indianapolis. (Please review Volume 140, December 1997, "The School Administrator and Uniform Compliance Guidelines.")
- April 30: Last day to file federal quarterly report, Form 941, to the Internal Revenue Service for federal and social security taxes for the first quarter.

MAY

May 1: Prove all ledgers for the month ending April 30 as outlined for the month of February.

Volume 141, Page 2 March 1998

ITEMS TO REMEMBER

(Continued)

- 1: School corporations not wishing to renew teachers' contracts (non-permanent teachers) for the 1998-1999 school year shall notify such teachers not later than May 1, 1998 in writing, delivered in person or mailed by registered or certified mail, that such teachers' contracts will not be renewed for the succeeding school year. Any teacher so notified may request a written statement showing reasons for dismissal. (IC 20-6.1-4-14)
- May 20: Last day to report and make payment of state and county income tax withheld during April to Department of State Revenue, Indiana Government Center North, Indianapolis. (Please review Volume 140, December 1997, "The School Administrator and Uniform Compliance Guidelines Manual.")
- May 25: Memorial Day Legal Holiday (IC 1-1-9-1)
- May 31: On or before June 1 and December 1 of each year (or more frequently if the county legislative body adopts an ordinance requiring additional certifications) the school corporation shall certify a list of the names and addresses of each person who has money due from the school corporation to the county treasurer. (IC 6-1.1-22-14).

OBSOLETE VOLUME

All articles of Volume 101 of "The School Administrator" have now been updated and reprinted in later volumes or are no longer applicable. Thus, Volume 101 which was distributed in March of 1988 may now be deleted from your file.

SUBSTITUTE TEACHERS

Wages

IC 20-6.1-5-3 states "The governing body shall fix wages for substitute teachers. A 'substitute teacher' may be engaged without a written contract."

<u>Licenses</u>

IC 20-6.1-5-4 states

"(a) A person who:

- (1) holds a:
 - (A) professional license;
 - (B) provisional license;
 - (C) limited license; or
 - (D) an equivalent license, which is issued by the professional standards board; and
- (2) serves as an occasional substitute teacher;

shall be compensated on the pay schedule for substitutes of the school corporation he serves." (b) A person who:

- (1) holds a:
 - (A) professional license; or
 - (B) provisional license; and
- (2) serves as a substitute teacher in the same teaching position for more than fifteen (15) consecutive school days:

shall be compensated on the regular pay schedule for teachers of the school corporation he serves."

Volume 141, Page 3 March 1998

NEW HIRES

The Department of Workforce Development should be contacted for all questions concerning the "Personal Responsibility and Work Opportunity Reconciliation Act of 1996" and requirements that all employees must file a "new hire report" for each "newly hired" employee. Please consult the "New Hire Program Help Line" at 1-800-437-9136 or www.dwd.state.in.us.

SCHOOL CORPORATION - TAX ANTICIPATION WARRANTS

IC 20-5-4-8 concerning the issuance of tax anticipation warrants for school corporations states in part "(a) Whenever the governing board of a school corporation finds and declares that an emergency exists for the borrowing of money with which to pay current expenses from a particular fund before the receipt of revenues from taxes levied or state tuition support distributions for such fund, the governing board may issue warrants in anticipation of the receipt of said revenues."

- "(b) The principal of these warrants shall be payable solely from the fund for which the taxes are levied or from the general fund in the case of anticipated state tuition support distributions. However, the interest on these warrants may be paid from the debt service fund, from the fund for which the taxes are levied, or the general fund in the case of anticipated state tuition support distributions."
- "(c) The amount of principal of temporary loans maturing on or before June 30 for any fund shall not exceed eighty percent (80%) of the amount of taxes and state tuition support distributions estimated to be collected or received for and distributed to the fund at the June settlement."
- "(d) The amount of principal of temporary loans maturing after June 30, and on or before December 31, shall not exceed eighty percent (80%) of the amount of taxes and state tuition support distributions estimated to be collected or received for and distributed to the fund at the December settlement."

Prior to March 1988 the State Board of Accounts was of the audit position that tax anticipation warrants were to be issued in no more than six month maturities with the assumption that two separate sets of warrants would be issued. We modified our position to allow for a twelve month maturity equal to 80% of the December distribution for the tax warrant program offered by the Indiana Bond Bank.

The State Board of Accounts is of the audit position that school corporations may issue two sets of (up to) six month warrants maturing on June 30 and December 31, each equal to 80% of the respective settlement, or a school corporation may issue a single set of (up to) twelve month warrants maturing on December 31, equal to 80% of the December and applicable distributions.

Whichever method is chosen, tax anticipation borrowing is to be based upon need. Requirements exist for the computation of a "cumulative cash flow deficit" in order to determine whether or in what amounts tax anticipation warrants may be issued. You should maintain a cumulative cash flow deficit worksheet at the school corporation.

We will not take audit exception to warrants issued under these guidelines unless there was no projected deficit, noncompliance with IC 20-5-4-8, or penalty or interest charges were paid by the school corporation. The ability to take advance draws could offset any cash flow deficit, eliminating the need for anticipation borrowing. Each review will be made on a case by case basis to determine if the computation was reasonable or the borrowing was necessary.

Volume 141, Page 4 March 1998

INDEBTEDNESS

The Constitution of the State of Indiana prohibits indebtedness of local units of government in any manner or for any purpose in an amount exceeding 2% on the value of the taxable property within such local unit of government.

Some confusion has existed concerning the Veterans Memorial School Construction Fund and the Common School Fund advancements. The question arises as to whether or not these advancements are considered a part of the indebtedness when applied against the limit of two percent valuation of the school corporation.

Common School Fund

IC 21-1-5-7 states in part (a) "No advance under this chapter shall be an obligation of the school corporation or school township within the meaning of any constitutional limitation on or prohibition against indebtedness."

IC 21-1-5.1-5 states in part (b) "An advancement from the common school fund may not be construed to be an obligation of the school corporation within the meaning of the limitation against indebtedness under the Constitution of the State of Indiana."

Veterans Memorial School Fund

IC 21-1-11-7 states in part "Such advancement out of the state school tuition fund shall not be an obligation of the school corporation within the meaning of the constitutional limitation against indebtedness."

The school corporation must agree to have the total amount of the money advanced plus the applicable interest on the outstanding balance thereof deducted from the distributions to the school corporation for state support.

PURCHASE OF SCHOOL BUSES

Authority

IC 20-9.1-6-1 states "A school corporation may purchase school buses or special purpose buses in order to furnish transportation for school children. It may purchase both the body and the chassis of the school bus, or it may purchase either the body or the chassis. A purchase may be made for cash or under the terms of a security agreement."

Security Agreements

IC 20-9.1-6-2 states "A security agreement under this chapter shall run for a period not longer than six (6) years. It shall be amortized in equal, or approximately equal, installments, payable on the first day of January and July each year. The first installment of principal and interest shall be due and payable on the first day of July next following the collection of a tax which was levied after execution of the security agreement."

IC 20-9.1-6-3 states in part "Before a security agreement is executed, an appropriation for the amount of the purchase price shall be made.

Volume 141, Page 5 March 1998

PURCHASE OF SCHOOL BUSES (Continued)

General Obligation Bonds

IC 20-9.1-6-4 states "When a school corporation requires funds to purchase a school bus for cash, it may borrow the necessary funds by issuing general obligation bonds. The bonds shall be issued in the same manner as other general obligation bonds; however, they may not extend for more than six (6) years."

<u>Loans</u>

IC 20-9.1-6-5 provides "When a school corporation requires funds to purchase a school bus for cash, it may, in lieu of issuing general obligation bonds, negotiate for and borrow funds or purchase the bus on an installment conditional sales contract or promissory note secured by the bus. To effect a loan, the school corporation shall execute its negotiable note or notes to the lender. The notes shall not extend for more than six (6) years and shall be payable at the same times and in the same manner as provided for security agreements in section 2 of this chapter. Before a note is executed, an appropriation for the amount of the purchase price of the buses and any incidental expenses connected with the purchase or the loan, shall be made in the same manner as other appropriations are made, except that the amount of the appropriation is not limited by the amount of funds available at the time of loan or purchase or by the amount of funds to be raised by a tax levy effective at the time of the loan. No petition to borrow, notice to taxpayers, or other formality is necessary to borrow funds under this section except as specifically provided in this chapter."

Manner of Purchase

IC 20-9.1-6-6 provides "Each purchase of a school bus shall be made in the same manner as provided by law for the purchase of school supplies by school corporations. When a school bus is purchased under a security agreement, any required notice to bidders or solicitation of bids shall set the length of time the security agreement shall run; the notice shall also set the terms of the security agreement including the security agreement price and interest rate. The low bid for a security agreement shall be determined by adding to each bidding price the net interest cost and then comparing the aggregates of the price and interest on each bid. Any difference between the cash and the security agreement prices shall not be considered a charge under section 2 of this chapter. Instead, a separate statement of each price shall be made to enable the governing body to determine the advisability of purchasing a school bus under a security agreement."

EDUCATIONAL LICENSE FEES

Several items have come to our attention concerning our article entitled "Educational License Fees", in "The School Administrator and Uniform Compliance Guidelines", Volume 138, June 1997.

Please note IC 9-18-31-7 states in part (a) "... A school corporation that receives benefit from an educational foundation that meets the requirements of this section shall:

- (1) obtain a certificate from the educational foundation that certifies to the school corporation and the county auditor that the educational foundation:
 - (A) is exempt from federal income taxation under Internal Revenue Code Section 501(c)(3):

Volume 141, Page 6 March 1998

EDUCATIONAL LICENSE FEES (Continued)

- (B) is established as an Indiana nonprofit corporation to provide benefit to the school corporation; and
- (2) provide a copy of the certificate described in subdivision (1) to the county auditor."

We suggest any school corporation which believes that it does not receive "benefit" from an educational foundation that would otherwise meet the requirements of IC 9-18-31-7 receive written direction from the school corporation attorney. Additionally, the board of school trustees should state the position of the school corporation in a public meeting with proper recording in the minutes of the board.

IC 9-18-31-7 states in part (b) "If a school corporation designated to receive a fee under section 5(c) of this chapter does not receive benefit from an educational foundation described under subsection (a), the fees designated to go to the school corporation shall be distributed to the school corporation and <u>may only be</u> <u>used for purposes</u> other than general fund <u>purposes</u>." (Our Emphasis)

We are of the audit position these expenditures should generally only be for items designated in the Chart of Accounts for other funds, besides the general fund. Pay raises for teachers are often general fund expenditures and should not normally be paid from fees received under IC 9-18-31.

OPTICAL IMAGED CHECKS

IC 5-15-6-3 states in part "... 'original records' includes the optical image of a check...".

The State Board of Accounts is of the audit position both sides of a check are part of the original record. Therefore, both sides of an "optical imaged check" should be available for public inspection and audit. Encoding, printing or bank certification should exist to ascertain that the back side of a check is part of a particular check, ie, endorsements belong to the front side of a check presented.

ACCOUNTING FOR INVESTMENTS

The system of accounting for the investment of public funds includes setting up a Ledger Form 508, in the Clearing Accounts section of the Fund Ledger and Ledger of Receipts, entitled "Clearing Account - Investments", Account Number 850, for recording investments purchased from all school corporation funds. Head the receipts column "Purchase of Investments" and the disbursement column "Sale of Investments." Also set up a General Form 350, Register of Investments, for recording the investments made separately from each Fund.

As an example of recording an investment transaction, consider an investment made from the Capital Projects Fund. Disburse the cost (purchase price) of the investment from the Capital Projects Fund and from the Control of All Funds. Also record the purchase price in Expenditure Account 43300 (on Form 512) which you have set up following the Nonprogrammed Charges Control (Account 40000) of the Capital Projects Fund in the Ledger of Appropriations, Allotments, Encumbrances, Disbursements and Balances. Receipt the purchase price to Clearing Account 851 and increase the balance accordingly. On the Register of Investments, General Form 350, identified with the Capital Projects Fund, record the purchase price (cost).

If interest is received while the security is held by the school corporation, record the amount received on

Volume 141, Page 7 March 1998

ACCOUNTING FOR INVESTMENTS (Continued)

General Form 350 on the same line as that on which the investment is recorded; also receipt the interest received to Receipt Account 1510 following the Capital Projects Fund. In addition, receipt the interest to the Capital Projects Fund and carry it to the Control of All Funds.

When the investment is sold or it matures, receipt the sale price to the Capital Projects Fund and to the Control of All Funds. Also record in the receipt accounts following the Capital Projects Fund, the purchase price of the security in Account 7130 and any surplus to Account 1510, Interest on Investments. If sold at less than the purchase price, receipt the amount of the sale to account 7130 only, then disburse from the Clearing Accounts, Account 852, the purchase price of the security and reduce the balance accordingly. Record the sale (purchase price) on the Register of Investments - Capital Projects Fund (General Form 350) on the same line as the purchase was recorded. Any amount received in excess of the purchase price will be recorded on Form 350 as interest received. Investments from other "Fund" accounts will be accounted for in the same manner as illustrated for the Capital Projects Fund.

If the governing body, by resolution, authorizes the corporation treasurer to invest from the depository balance instead of from a specific fund, the check issued for purchase of the investment will not be posted to any fund or to the control of all funds. The check will be entered only in the Treasurer's Daily Balance of Cash, Depositories and Investments Record, General Form 361 (Revised 1975), in which provision has been made to account for investments made from the depository balances as well as those from individual funds. An investment from the total moneys on deposit will also be entered in General Form 350 and a complete record maintained therein.

When an investment from the total moneys on deposit matures or is cashed, an Official Receipt, Form 517, shall be issued; however, only the interest received from such an investment will be posted to the Fund Ledger and Ledger of Receipts, with the principal being entered only in the Daily Balance Record, Form 361. Interest received from the investment of total moneys on deposit will be credited to the fund or funds designated by the school board.

If the foregoing procedure is observed, General Form 350 will show at all times the amount invested from each fund and from the total moneys on deposit. The Fund Ledger and the "Clearing Account - Investments", Account 850, will account for investments made from a specific fund, while the Daily Balance Record, Form 361, will account for all investments, including those made from the fund account and those made from the total moneys on deposit. Form 361 should at all times agree with the transactions recorded in General Form 350.

Please review the Accounting Manual for Indiana School Corporations for additional information concerning investments.

SCHOOLHOUSE HOLDING CORPORATIONS

Many schoolhouse holding corporations have received or may be nearing the point of having received sufficient funds to redeem all outstanding bonds and pay all interest coupons. In some instances, funds have been invested by holding corporations and the earnings on these investments have served to reduce the number of lease rental payments necessary from the school corporation to meet the needs of the holding corporation. The school corporation must rely on fiscal officers to maintain a close business relationship with the holding corporation treasurer or fiscal trustee to ascertain that the school corporation is receiving credit for earnings on the investment of excess funds on deposit in the holding corporation

Volume 141, Page 8 March 1998

SCHOOLHOUSE HOLDING CORPORATIONS (Continued)

treasury. Credit to the school corporation may be effected by an eventual reduction in the total amount of lease rental needed to be collected from the school corporation for retirement of the debt of the holding corporation.

Many trust agreements provide for annual reports to be made by each holding corporation to the purchasers of bonds and, in some instances, provide for audited reports to be furnished. We would suggest that copies of such reports be obtained from the holding corporation, if possible. Field Examiners of the State Board of Accounts will assist school corporation fiscal officers as much as possible.

IC 21-5-11-17 states "(a) Upon the termination of a lease entered into under this chapter, the lessor corporation shall return to the school corporation any money held by the lessor corporation in excess of the amount needed to retire bonds issued under this chapter and to dissolve the lessor corporation." "(b) A school corporation shall deposit the money received under subsection (a) into its debt service fund or capital projects fund."

IC 21-5-12-13 has similar provisions.

FEDERAL ASSISTANCE - DATA COLLECTION FORM

The Bureau of Census began sending in 1997 to units of government receiving federal funds Form SF-SAC, Data Collection Form for Reporting on Audits of States, Local Governments, and Non-Profit Organizations.

Please keep the form on file and as our Field Examiners begin doing the audits they will be requesting the forms.

School corporations, as our auditee, will be required to complete a portion of the form and the State Board of Accounts, as auditor, will be required to fill out the rest of the form.

Do not currently mail the form to the Single Audit Clearinghouse in Jeffersonville. Field Examiners will provide any assistance and guidance needed in completing the form, at the time of audit. The completion of the form only needs to be done in conjunction with the State Board of Accounts' audit and the work we do with the completion of the form is part of our service. The school corporation's participation in completion of the form in most situations should not be difficult, which hopefully will negate the need for any additional service costs to the taxpayers.

RATES FOR LEGAL ADVERTISING

The rates for legal advertising may change effective January 1, 1998. IC 5-3-1-1 provides newspapers or qualified publications the ability to increase rates up to five percent (5%), should they choose. Your publisher may not increase rates at all or may increase the rates at something less than the maximum. We have revised the rates for the legal advertising to reflect a five percent (5%) increase, and we have enclosed a copy of the tables for your convenience.

RATES for LEGAL ADVERTISING

Effective January 1, 1998

The following rates, effective January 1, 1998, were computed based upon the statutorily authorized 5% maximium increase allowed by P.L. 64-1995. Any percentage increase other than the 5% will require a separate computation by the State Board of Accounts. Any publisher that has not chosen to increase rates at all will continue to use the rate schedule that was effective January 1, 1988.

	7 E	m Colur	nn			7.4 E	m Colur	nn			
	Number of Insertions					Number of Insertions					
Type Size	1	2	3	4	Type Size	1	2	3	4		
5.5	0.234	0.351	0.467	0.584	5.5	0.247	0.371	0.494	0.617		
6	0.214	0.321	0.428	0.535	6	0.227	0.340	0.453	0.566		
6.5	0.198	0.297	0.395	0.494	6.5	0.209	0.314	0.418	0.522		
7	0.184	0.276	0.367	0.459	7	0.194	0.291	0.388	0.485		
7.5	0.172	0.257	0.343	0.428	7.5	0.181	0.272	0.362	0.453		
8	0.161	0.241	0.321	0.402	8	0.170	0.255	0.340	0.424		
9	0.143	0.214	0.286	0.357	9	0.151	0.227	0.302	0.377		
10	0.129	0.193	0.257	0.321	10	0.136	0.204	0.272	0.340		
12	0.107	0.161	0.214	0.268	12	0.113	0.170	0.226	0.283		
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56		

	7.83 E	m Colur	nn			8 E	m Colur	nn	
	Number of Insertions					Nu	ımber of In	sertions	
Type Size	1	2	3	4	Type Size	1	2	3	4
5.5	0.262	0.392	0.523	0.653	5.5	0.267	0.401	0.534	0.667
6	0.240	0.360	0.479	0.599	6	0.245	0.367	0.490	0.612
6.5	0.221	0.332	0.442	0.553	6.5	0.226	0.339	0.452	0.565
7	0.206	0.308	0.411	0.513	7	0.210	0.315	0.420	0.524
7.5	0.192	0.288	0.383	0.479	7.5	0.196	0.294	0.392	0.489
8	0.180	0.270	0.359	0.449	8	0.184	0.276	0.367	0.459
9	0.160	0.240	0.319	0.399	9	0.163	0.245	0.326	0.408
10	0.144	0.216	0.288	0.359	10	0.147	0.220	0.294	0.367
12	0.120	0.180	0.240	0.299	12	0.123	0.184	0.245	0.306
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56

ര	C C	
0.2	Em Column	

8.3 Em Colur	mn
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		<u>Nu</u>	mber of In	sertions					
Type Size _	1	2	3	4	Type Size	1	2	3	4
5.5	0.274	0.411	0.547	0.684	5.5	0.277	0.416	0.554	0.692
6	0.251	0.377	0.502	0.627	6	0.254	0.381	0.508	0.635
6.5	0.232	0.348	0.463	0.579	6.5	0.235	0.352	0.469	0.586
7	0.215	0.323	0.430	0.538	7	0.218	0.327	0.435	0.544
7.5	0.201	0.301	0.401	0.502	7.5	0.203	0.305	0.406	0.508
8	0.188	0.282	0.376	0.470	8	0.191	0.286	0.381	0.476
9	0.167	0.251	0.335	0.418	9	0.170	0.254	0.339	0.423
10	0.151	0.226	0.301	0.376	10	0.153	0.229	0.305	0.381
12	0.126	0.188	0.251	0.314	12	0.127	0.191	0.254	0.317
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56

8.4 Em Column										
	Number of Insertions									
Type Size	1	2	3	4						
5.5	0.281	0.421	0.561	0.701						
6	0.257	0.386	0.514	0.642						
6.5	0.238	0.356	0.475	0.593						
7	0.221	0.331	0.441	0.551						
7.5	0.206	0.309	0.411	0.514						
8	0.193	0.289	0.386	0.482						
9	0.172	0.257	0.343	0.428						
10	0.154	0.231	0.308	0.385						
12	0.129	0.193	0.257	0.321						
Rate / Square	3.83	5.74	7.65	9.56						

	8.5 Em Column										
	Number of Insertions										
Type Size _	1	2	3	4							
5.5	0.284	0.426	0.567	0.709							
6	0.260	0.390	0.520	0.650							
6.5	0.240	0.360	0.480	0.600							
7	0.223	0.335	0.446	0.557							
7.5	0.208	0.312	0.416	0.520							
8	0.195	0.293	0.390	0.488							
9	0.174	0.260	0.347	0.433							
10	0.156	0.234	0.312	0.390							
12	0.130	0.195	0.260	0.325							
Rate / Square	3.83	5.74	7.65	9.56							

	8.6 E	m Colur	nn			8.75 E	m Colur	nn			
	Number of Insertions					Number of Insertions					
Type Size	1	2	3	4	Type Size	1	2	3	4		
5.5	0.287	0.431	0.574	0.718	5.5	0.292	0.438	0.584	0.730		
6	0.264	0.395	0.526	0.658	6	0.268	0.402	0.536	0.669		
6.5	0.243	0.365	0.486	0.607	6.5	0.247	0.371	0.494	0.618		
7	0.226	0.338	0.451	0.564	7	0.230	0.344	0.459	0.574		
7.5	0.211	0.316	0.421	0.526	7.5	0.214	0.321	0.428	0.535		
8	0.198	0.296	0.395	0.493	8	0.201	0.301	0.402	0.502		
9	0.176	0.263	0.351	0.438	9	0.179	0.268	0.357	0.446		
10	0.158	0.237	0.316	0.395	10	0.161	0.241	0.321	0.402		
12	0.132	0.197	0.263	0.329	12	0.134	0.201	0.268	0.335		
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56		

8.8 Em Column 8.9	Em Column
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		Number of Insertions							
Type Size	1	2	3	4	Type Size _	1	2	3	4
5.5	0.294	0.441	0.588	0.734	5.5	0.297	0.446	0.594	0.743
6	0.270	0.404	0.539	0.673	6	0.273	0.409	0.545	0.681
6.5	0.249	0.373	0.497	0.621	6.5	0.252	0.377	0.503	0.628
7	0.231	0.346	0.462	0.577	7	0.234	0.350	0.467	0.583
7.5	0.216	0.323	0.431	0.538	7.5	0.218	0.327	0.436	0.545
8	0.202	0.303	0.404	0.505	8	0.205	0.307	0.409	0.511
9	0.180	0.269	0.359	0.449	9	0.182	0.272	0.363	0.454
10	0.162	0.242	0.323	0.404	10	0.164	0.245	0.327	0.408
12	0.135	0.202	0.269	0.337	12	0.136	0.204	0.272	0.340
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56

	9 E	m Colur	mn		9.3 Em Column					
	<u>Nu</u>	ımber of Ir	nsertions			<u>Nu</u>	ımber of Ir	sertions		
Type Size	1	2	3	4	Type Size	1	2	3	4	
5.5	0.301	0.451	0.601	0.751	5.5	0.311	0.466	0.621	0.776	
6	0.276	0.413	0.551	0.688	6	0.285	0.427	0.569	0.711	
6.5	0.255	0.381	0.508	0.635	6.5	0.263	0.394	0.525	0.657	
7	0.236	0.354	0.472	0.590	7	0.244	0.366	0.488	0.610	
7.5	0.221	0.331	0.441	0.551	7.5	0.228	0.342	0.455	0.569	
8	0.207	0.310	0.413	0.516	8	0.214	0.320	0.427	0.533	
9	0.184	0.276	0.367	0.459	9	0.190	0.285	0.379	0.474	
10	0.165	0.248	0.330	0.413	10	0.171	0.256	0.341	0.427	
12	0.138	0.207	0.275	0.344	12	0.142	0.214	0.285	0.356	
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56	

	9.5 E	m Colur	nn			9.6 E	m Colur	nn		
	<u>Nu</u>	mber of Ir	sertions		Number of Insertions					
Type Size	1	2	3	4	Type Size	1	2	3	4	
5.5	0.318	0.476	0.634	0.793	5.5	0.321	0.481	0.641	0.801	
6	0.291	0.436	0.581	0.727	6	0.294	0.441	0.588	0.734	
6.5	0.269	0.403	0.537	0.671	6.5	0.272	0.407	0.542	0.678	
7	0.249	0.374	0.498	0.623	7	0.252	0.378	0.504	0.629	
7.5	0.233	0.349	0.465	0.581	7.5	0.235	0.353	0.470	0.587	
8	0.218	0.327	0.436	0.545	8	0.221	0.331	0.441	0.551	
9	0.194	0.291	0.388	0.484	9	0.196	0.294	0.392	0.489	
10	0.175	0.262	0.349	0.436	10	0.176	0.264	0.353	0.441	
12	0.146	0.218	0.291	0.363	12	0.147	0.220	0.294	0.367	
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56	

	9.9 Em Column					10 Em Column					
Number of Insertions					Number of Insertions						
Type Size	1	2	3	4	Type Size	1	2	3	4		
5.5	0.331	0.496	0.661	0.826	5.5	0.334	0.501	0.668	0.834		
6	0.303	0.455	0.606	0.757	6	0.306	0.459	0.612	0.765		
6.5	0.280	0.420	0.559	0.699	6.5	0.283	0.424	0.565	0.706		
7	0.260	0.390	0.519	0.649	7	0.263	0.394	0.525	0.656		
7.5	0.243	0.364	0.485	0.606	7.5	0.245	0.367	0.490	0.612		
8	0.228	0.341	0.454	0.568	8	0.230	0.344	0.459	0.574		
9	0.202	0.303	0.404	0.505	9	0.204	0.306	0.408	0.510		
10	0.182	0.273	0.364	0.454	10	0.184	0.276	0.367	0.459		

12

Rate / Square

0.153

3.83

0.230

5.74

0.306

7.65

0.382

9.56

	10.5 Em Column					11 Em Column				
	<u>Nu</u>	ımber of Ir	nsertions			<u>Nu</u>	mber of In	sertions		
Type Size	1	2	3	4	Type Size	1	2	3	4	
5.5	0.351	0.526	0.701	0.876	5.5	0.368	0.551	0.734	0.918	
6	0.322	0.482	0.643	0.803	6	0.337	0.505	0.673	0.841	
6.5	0.297	0.445	0.593	0.741	6.5	0.311	0.466	0.621	0.777	
7	0.276	0.413	0.551	0.688	7	0.289	0.433	0.577	0.721	
7.5	0.257	0.386	0.514	0.642	7.5	0.270	0.404	0.539	0.673	
8	0.241	0.362	0.482	0.602	8	0.253	0.379	0.505	0.631	
9	0.214	0.321	0.428	0.535	9	0.225	0.337	0.449	0.561	
10	0.193	0.289	0.386	0.482	10	0.202	0.303	0.404	0.505	
12	0.161	0.241	0.321	0.402	12	0.169	0.253	0.337	0.421	
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56	

	11.25 Em Column					11.5 Em Column					
	<u>Nu</u>	ımber of Ir	nsertions		Number of Insertions						
Type Size	1	2	3	4	Type Size	1	2	3	4		
5.5	0.376	0.564	0.751	0.939	5.5	0.384	0.576	0.768	0.959		
6	0.345	0.517	0.689	0.860	6	0.352	0.528	0.704	0.880		
6.5	0.318	0.477	0.636	0.794	6.5	0.325	0.487	0.650	0.812		
7	0.295	0.443	0.590	0.737	7	0.302	0.453	0.603	0.754		
7.5	0.276	0.413	0.551	0.688	7.5	0.282	0.422	0.563	0.704		
8	0.259	0.387	0.516	0.645	8	0.264	0.396	0.528	0.660		
9	0.230	0.344	0.459	0.574	9	0.235	0.352	0.469	0.586		
10	0.207	0.310	0.413	0.516	10	0.211	0.317	0.422	0.528		
12	0.172	0.258	0.344	0.430	12	0.176	0.264	0.352	0.440		
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56		

12

Rate / Square

0.152

3.83

0.227

5.74

0.303

7.65

0.379

9.56

1	2	Fm	Column	-
	_		Colulli	

12.2	Fm	Column
12.2		Colullii

		Number of Insertions							
Type Size	1	2	3	4	Type Size	1	2	3	4
5.5	0.401	0.601	0.801	1.001	5.5	0.408	0.611	0.815	1.018
6	0.368	0.551	0.734	0.918	6	0.374	0.560	0.747	0.933
6.5	0.339	0.509	0.678	0.847	6.5	0.345	0.517	0.689	0.861
7	0.315	0.472	0.629	0.787	7	0.320	0.480	0.640	0.800
7.5	0.294	0.441	0.588	0.734	7.5	0.299	0.448	0.597	0.746
8	0.276	0.413	0.551	0.688	8	0.280	0.420	0.560	0.700
9	0.245	0.367	0.490	0.612	9	0.249	0.373	0.498	0.622
10	0.221	0.331	0.441	0.551	10	0.224	0.336	0.448	0.560
12	0.184	0.276	0.367	0.459	12	0.187	0.280	0.373	0.467
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56

12.4	Fm	Column
16.1		Ocidini

12 41 Fm Column

	12.4 E	:m Colur	nn		12.41 Em Column					
	<u>Nu</u>	ımber of Ir	nsertions			<u>Nu</u>	ımber of In	sertions		
Type Size	1	2	3	4	Type Size	1	2	3	4	
5.5	0.414	0.621	0.828	1.035	5.5	0.415	0.622	0.829	1.035	
6	0.380	0.569	0.759	0.948	6	0.380	0.570	0.759	0.949	
6.5	0.351	0.526	0.701	0.875	6.5	0.351	0.526	0.701	0.876	
7	0.326	0.488	0.650	0.813	7	0.326	0.488	0.651	0.814	
7.5	0.304	0.456	0.607	0.759	7.5	0.304	0.456	0.608	0.759	
8	0.285	0.427	0.569	0.711	8	0.285	0.427	0.570	0.712	
9	0.253	0.380	0.506	0.632	9	0.253	0.380	0.506	0.633	
10	0.228	0.342	0.455	0.569	10	0.228	0.342	0.456	0.569	
12	0.190	0.285	0.379	0.474	12	0.190	0.285	0.380	0.475	
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56	

12.5 Em Column

13 Em Column

	<u>Nu</u>	ımber of Ir	nsertions			Number of Insertions			
Type Size _	1	2	3	4	Type Size _	1	2	3	4
5.5	0.418	0.626	0.835	1.043	5.5	0.435	0.651	0.868	1.085
6	0.383	0.574	0.765	0.956	6	0.398	0.597	0.796	0.994
6.5	0.354	0.530	0.706	0.882	6.5	0.368	0.551	0.734	0.918
7	0.328	0.492	0.656	0.819	7	0.341	0.512	0.682	0.852
7.5	0.306	0.459	0.612	0.765	7.5	0.319	0.478	0.636	0.795
8	0.287	0.431	0.574	0.717	8	0.299	0.448	0.597	0.746
9	0.255	0.383	0.510	0.637	9	0.266	0.398	0.530	0.663
10	0.230	0.344	0.459	0.574	10	0.239	0.358	0.477	0.597
12	0.192	0.287	0.383	0.478	12	0.199	0.298	0.398	0.497
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56

13	5	Fm	Column
	. •		COIGITII

14	Em	Column
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		Number of Insertions							
Type Size	1	2	3	4	Type Size _	1	2	3	4
5.5	0.451	0.676	0.901	1.126	5.5	0.468	0.701	0.935	1.168
6	0.414	0.620	0.826	1.032	6	0.429	0.643	0.857	1.071
6.5	0.382	0.572	0.763	0.953	6.5	0.396	0.593	0.791	0.988
7	0.355	0.531	0.708	0.885	7	0.368	0.551	0.734	0.918
7.5	0.331	0.496	0.661	0.826	7.5	0.343	0.514	0.685	0.857
8	0.310	0.465	0.620	0.774	8	0.322	0.482	0.643	0.803
9	0.276	0.413	0.551	0.688	9	0.286	0.429	0.571	0.714
10	0.248	0.372	0.496	0.619	10	0.257	0.386	0.514	0.642
12	0.207	0.310	0.413	0.516	12	0.214	0.321	0.428	0.535
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56

14	.5	Em	Col	umr

4 -	_	
15	Εm	Column

17.5 LIII COIdIIIII				15 Lili Coluilli					
Number of Insertions					Number of Insertions				
Type Size _	1	2	3	4	Type Size	1	2	3	4
5.5	0.485	0.726	0.968	1.210	5.5	0.501	0.751	1.001	1.251
6	0.444	0.666	0.887	1.109	6	0.460	0.689	0.918	1.147
6.5	0.410	0.615	0.819	1.024	6.5	0.424	0.636	0.847	1.059
7	0.381	0.571	0.761	0.951	7	0.394	0.590	0.787	0.983
7.5	0.355	0.533	0.710	0.887	7.5	0.368	0.551	0.734	0.918
8	0.333	0.499	0.666	0.832	8	0.345	0.517	0.689	0.860
9	0.296	0.444	0.592	0.739	9	0.306	0.459	0.612	0.765
10	0.267	0.400	0.532	0.665	10	0.276	0.413	0.551	0.688
12	0.222	0.333	0.444	0.554	12	0.230	0.344	0.459	0.574
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56

16.5 Em Column

17 Em Column

Number of Insertions						Number of Insertions			
Type Size _	1	2	3	4	Type Size _	1	2	3	4
5.5	0.552	0.827	1.102	1.377	5.5	0.568	0.852	1.135	1.418
6	0.506	0.758	1.010	1.262	6	0.521	0.781	1.040	1.300
6.5	0.467	0.699	0.932	1.165	6.5	0.481	0.721	0.960	1.200
7	0.433	0.649	0.866	1.082	7	0.446	0.669	0.892	1.114
7.5	0.404	0.606	0.808	1.010	7.5	0.417	0.625	0.832	1.040
8	0.379	0.568	0.757	0.946	8	0.391	0.585	0.780	0.975
9	0.337	0.505	0.673	0.841	9	0.347	0.520	0.694	0.867
10	0.303	0.455	0.606	0.757	10	0.313	0.468	0.624	0.780
12	0.253	0.379	0.505	0.631	12	0.260	0.390	0.520	0.650
Rate / Square	3.83	5.74	7.65	9.56	Rate / Square	3.83	5.74	7.65	9.56

18 Em Column				20 Em Column					
Number of Insertions					Number of Insertions				
Type Size	1	2	3	4	Type Size	1	2	3	4
5.5	0.602	0.902	1.202	1.502	5.5	0.669	1.002	1.335	1.669
6	0.552	0.827	1.102	1.377	6	0.613	0.918	1.224	1.530
6.5	0.509	0.763	1.017	1.271	6.5	0.566	0.848	1.130	1.412
7	0.473	0.708	0.944	1.180	7	0.525	0.787	1.049	1.311
7.5	0.441	0.661	0.881	1.101	7.5	0.490	0.735	0.979	1.224
8	0.414	0.620	0.826	1.032	8	0.460	0.689	0.918	1.147
9	0.368	0.551	0.734	0.918	9	0.409	0.612	0.816	1.020
10	0.331	0.496	0.661	0.826	10	0.368	0.551	0.734	0.918
12	0.276	0.413	0.551	0.688	12	0.306	0.459	0.612	0.765

Rate / Square

3.83

5.74

7.65

9.56

Rate / Square

3.83

5.74

7.65

9.56